

REMARKS

This amendment is submitted in response to the Office action dated December 12, 2007. Reconsideration and allowance of the claims is requested. In this Office Action, the Restriction Requirement previously applied to claims 1-4, 7-11, 13-16 and 18-28 is withdrawn.

The claims are rejected under 35 U.S.C. 112 as being indefinite. Therefore, the claims have been reviewed and revised as necessary to eliminate this issue.

All the claims in the application are rejected under 35 U.S.C. 103 as unpatentable over Dolan (U.S. 5,604,801) in view of Rothstein "Making the Internet Come to You, Through 'Push' Technology" dated January 20, 1997. These rejections are respectfully traversed.

Applicant has amended all independent claims to emphasize the fact that the transaction approval occurs entirely at the PEAD, without transmission of the private key to the server requesting the approval, a feature which is not taught or suggested in Dolan. Dolan, throughout his application and especially at figures 4A, 4B and columns 6 and 7, relied on by the Examiner, teaches that the private key is stored at both the server 350 and arguably at the smart card 120. It is essential to Dolan's approach that the private key be transmitted from the smart card to the server for comparing the private key stored at the server (see step 482 and associated text). It is exactly this feature that does not occur or exist in the claimed invention as it creates a major security risk.

In the present invention, the user's private key is stored only at the PEAD, which is available only to the user. The private key is stored there so that it is not accessible at any point in the transaction approval process. Specifically, the private key is not transmitted to either the PEAD or away from the PEAD to any external server. In this regard, the Examiner is directed to page 11, lines 18-21, and page 13, lines 21-29 of Dolan, although the reference is replete with other references to the same feature.

As clearly set forth in both independent method claims 1 and 2, the user's private key, which is stored only at the user's PEAD, is used to create a transaction approval message. The approval message is encrypted using the user's private key and then sent to the server, without transmission of the user's private key, which is retained only at the PEAD. All these features are clearly set forth in the independent claims. By contrast, Dolan, at column 6, line 57 through column 7, line 11, includes the following statements:

"The secret keys SK associated with a number of users A, B, C, D...are stored securely in storage device 350 in encrypted form."

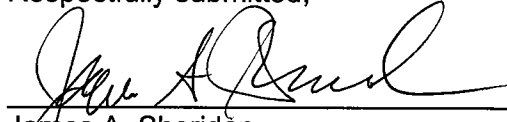
"When user A wishes to send a message MSG and an associated digital signature, smart card 120 generates a has value H of message MSG in step 480 and encrypts in step 481 user-specific key KEYa. This encrypted value of the key is sent along with the message and the information identifying the user across the network to server 130 in step 482."

"The process carried out by server 130 is illustrated in FIG. 4b. Server 130...decrypts the user-specific key KEYa in step 492. This KEY a is used in the secure environment to decrypt and temporarily store the decrypted value of the secret key of the user SKa in step 493. This decrypted secret key is then used, within the secure environment 360, to generate the digital signature for the message in step 494."

Clearly Dolan relies on transmission of the user's private key from the PEAD to the server as a part of the transaction approval process. An essential step of the disclosed approach is comparing the private key transmitted from the smart card to the server, which stores a list of all useable private keys. The other references cited by the Examiner have been reviewed and do not make up for Dolan's lack of teaching of the claimed invention.

In view of these clear distinctions, reconsideration and allowance of these claims is requested.

Respectfully submitted,



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